L. CHILSON.

Railroad Rail Joint Fastening.

No. 169,237. Patented Oct. 26, 1875.

Fig. 1.

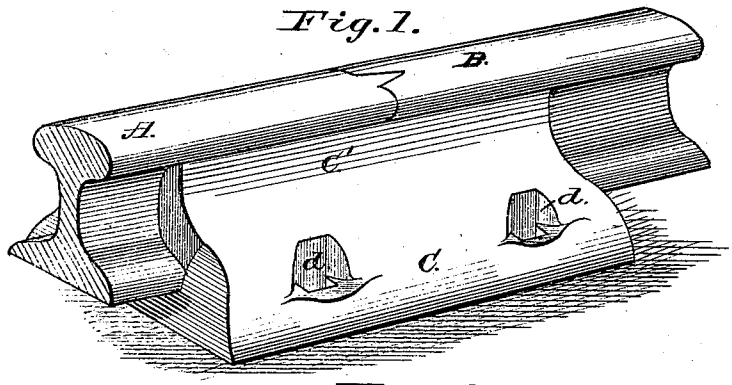


Fig. 2.

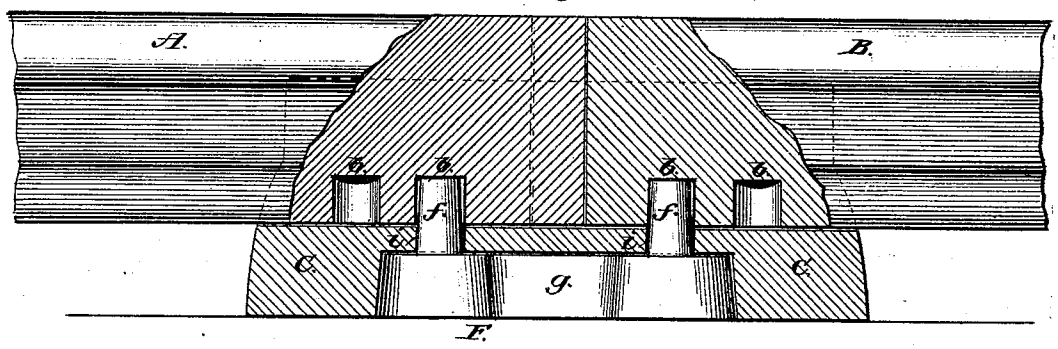


Fig. 3.

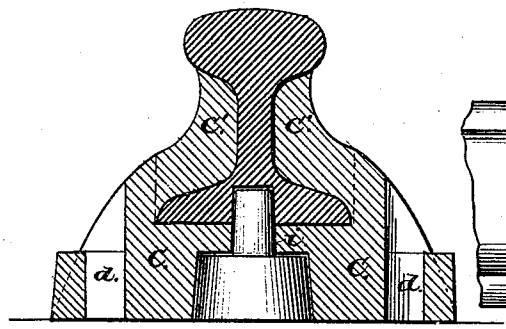


Fig. 4.

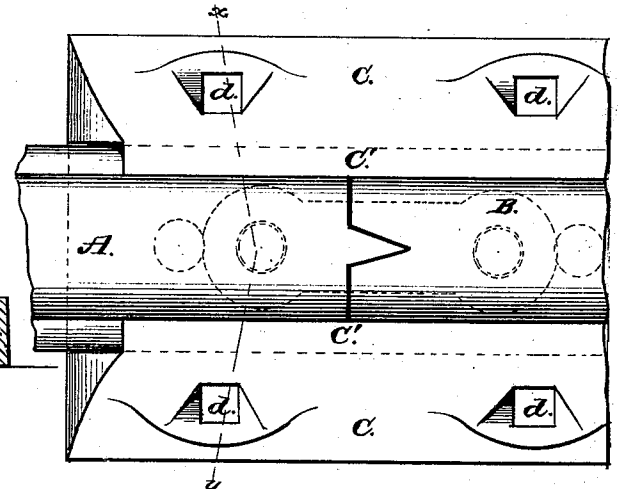
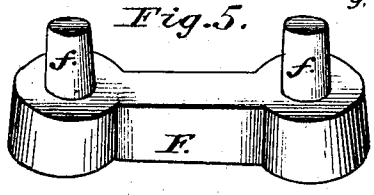


Fig. 5.



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LIBBEUS CHILSON, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR OF ONE-THIRD HIS RIGHT TO SETH ARNOLD, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-RAIL-JOINT FASTENINGS.

Specification forming part of Letters Patent No. **169,237**, dated October 26, 1875; application filed July 21, 1875.

To all whom it may concern:

Be it known that I, LIBBEUS CHILSON, of Woonsocket, in the county of Providence and in the State of Rhode Island, have invented a new and useful Improvement in Railroad-Rail Chairs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making a part of this specification.

My invention relates to a railway-rail joint, which combines the advantages of chair and fish plates, and dispenses with the use of bolts and nuts.

Figure 1 in the drawings represents the chair in perspective, showing the rails in position therein. Fig. 2 is a longitudinal section, showing the manner of coupling or fastening the rails. Fig 3 is a cross-section on line *x y* of Fig. 4. Fig. 4 is a top view of my rail-joint. Fig. 5 is a perspective view of the coupling link or pin.

A B represent two railroad-rails, of the usual form, but provided with holes *b*, sunk into their under side near their ends. C is the chair, provided with the side supports C′, which are formed to fit closely to the sides of the rail and against the shoulders thereof. F is the coupling-link, consisting of two pins or studs, *f f*, projecting from the main or connecting part *g*.

The ends of the rails are slid in until they meet at midlength of the chair, when the holes *b* in the rails are found to be opposite holes *i* in the chair. The coupling-link F is then inserted in the bottom of the chair, the studs *f f* projecting through the holes *i i* into the holes *b b* in each of the rails. A recess is formed in the bottom of the chair for the coupling-link. When the said link is inserted it makes an even surface with the bottom of the chair, and is designed to rest on the sleeper. On the chair being spiked down to the sleeper the link is fast in its place, and prevents the rails from creeping.

By my device I am enabled to dispense with the use of bolts and nuts, which are liable to become loose or break; and the ends of the rails are not weakened by numerous holes for the bolts, found necessary when fish-plates are used.

The parts being put in place, all that is necessary to fasten the whole is to spike the chair to the sleeper through the holes *d*.

At each end of the chair is a step-rest, formed by means of a recess in the upper part or sides of the device, as shown at *m*, so that the rails may be readily shoved in place, first being laid on the rest. The ends of the rails, respectively, may be tongued and grooved, as shown, so as to form a continuous rail-surface.

What is claimed as the invention is—

The combination of the rails provided with holes *b* at each end, chair C with side supports C′, conforming and fitting to the sides of the rails, said chair being recessed in its under side, and the coupling-link F, for holding the rails in place, substantially as and for the purpose set forth.

LIBBEUS CHILSON.

Witnesses:
WM. L. CHASE,
WM. M. WEEKS.